State Revolving Fund Loan Programs

Drinking Water, Wastewater, Nonpoint Source

ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

CITY OF INDIANAPOLIS

BELMONT NORTH PARALLEL INTERCEPTOR CONSTRUCTION PHASE 1

DPW # SS-24-001C; PER 6A-7

DATE: February 18, 2009

TARGET PROJECT APPROVAL DATE: March 23, 2009

I. INTRODUCTION

The above entity has applied to the Clean Water State Revolving Loan Fund (SRF) for a loan to finance all or part of the wastewater project described in the accompanying Environmental Assessment (EA). As part of facilities planning requirements, an environmental review has been completed which addresses the project's impacts on the natural and human environment. This review is summarized in the attached EA.

II. PRELIMINARY FINDING OF NO SIGNIFICANT IMPACT (FNSI)

The SRF Clean Water Program has evaluated all pertinent environmental information regarding the proposed project and determined that an Environmental Impact Statement is not necessary. Subject to responses received during the 30-day public comment period, and pursuant to Indiana Code 4-4-11, it is our preliminary finding that the construction and operation of the proposed facilities will result in no significant adverse environmental impact. In the absence of significant comments, the attached EA shall serve as the final environmental document.

III. COMMENTS

All interested parties may comment upon the EA/FNSI. Comments must be received at the address below by the deadline date above. Significant comments may prompt a reevaluation of the preliminary FNSI; if appropriate, a new FNSI will be issued for another 30-day public comment period. A final decision to proceed, or not to proceed, with the proposed project shall be effected by finalizing, or not finalizing, the FNSI as appropriate. Comments regarding this document should be sent within 30 days to:

Max Henschen
Senior Environmental Manager
State Revolving Fund -- IGCN 1275
100 N. Senate Ave.
Indianapolis, IN 46204
317-232-8623

ENVIRONMENTAL ASSESSMENT

I. PROJECT IDENTIFICATION

Project Name and Address:

Belmont North Parallel Interceptor Construction Phase 1
DPW # SS-24-001C; PER 6A-7
City of Indianapolis Dept. of Public Works
2460 City-County Building
200 East Washington Street
Indianapolis, IN 46204

Authorized Representative:

David Sherman, Director
Department of Public Works

II. PROJECT LOCATION

The proposed Belmont North Parallel Interceptor is a sanitary relief sewer that will convey excess flow from the northwestern portion of Indianapolis, as well as southern Boone County. The city will construct the relief sewer in phases. The first phase of the Belmont Parallel Interceptor will start from the intersection of 19th Street and Lafayette Road and end at 10th Street and Miley Avenue. The project area is located in the Indianapolis West Quadrangle, east ½ of Section 33 and southwest ¼ of Section 34, Township 16 North, and Range 3 East. East of Belmont St., the project is in Center Township; west of Belmont, the project is in Wayne Township. See Figure 1.

III. PROJECT NEED AND PURPOSE

The existing Belmont North Interceptor is a 42-inch and 54-inch diameter sewer that discharges into Belmont Interceptor in the combined sewer area. Over the years, inflow and infiltration (I/I) has increased, along with the number of users. In recent years, the Belmont North collection system has surcharged out of manholes onto city streets and nearby golf courses during rains. During extreme rain events, the hydraulic grade line in the main interceptor exceeds the grade elevation. The downstream Belmont North Interceptor is a 54-inch sewer, and its capacity is not adequate to handle the peak flows, based on the existing and future needs.

The system generates an average dry weather flow of 16.3 million gallons per day (MGD) at the downstream end near 10th Street. This flow includes 9.0 MGD of average dry weather flow from the Belmont West system, which joins the Belmont North Interceptor at 19th Street and Lafayette Road. The system generates a peak flow of 97 MGD at the downstream end near 10th Street, which includes 31 MGD of peak flow from the Belmont West Interceptor. This peak flow is greater than the infrastructure can carry: the full-flow capacity of the 54-inch interceptor is approximately 32 MGD and the peak hourly flow is 97 MGD. This results in a 65 MGD capacity deficit, which indicates the

need for the parallel interceptor. There is a significant bottleneck in the Belmont Interceptor where the Belmont North and West Interceptors join at 19th Street and Lafayette Road. Both the Belmont West Interceptor and the upper part of the Belmont North interceptor are 42-inches in diameter and currently are full during wet weather. In the future, the peak wet weather flow will drop from 97 MGD to 72 MGD when the city implements the Belmont West Cutoff project. That project will direct wet weather flow to another system, thereby reducing flows to the Belmont North Interceptor. The projected future flows for the Belmont North Interceptor are based on the Marion County Sanitary Sewer Master Plan and the city's StormWater Management Model. After the Belmont West Cutoff is implemented in the future, average dry weather and peak wet weather flows in the Belmont North Interceptor are 19.7 MGD and 72 MGD, respectively. The capacity deficit after the Belmont West Cutoff project is complete will be 40 MGD, which is the flow that needs to be diverted into the parallel relief interceptor described in this document. The deficits were determined through hydraulic modeling and flow metering.

There will be no new connections, additional flows or loadings as the result of the construction of the Phase 1 project. However, future phases will serve septic tank elimination project areas, as well as a small amount of future development.

In addition to providing relief for the Belmont North Interceptor, the Belmont North Parallel Interceptor Project will help the city achieve the goals of its Combined Sewer Overflow (CSO) Long-Term Control Plan (LTCP). The Phase 1 Construction project provides a route for the wastewater to continue downstream to the Belmont Advanced Wastewater Treatment plant, limiting the likelihood of surcharging during wet weather, and creating a bypass around the 54-inch bottleneck.

IV. PROJECT DESCRIPTION

The Phase 1 Construction project will install approximately 5,113 feet of 72-inch diameter sewer segment from 10th Street and Miley Avenue to 19th Street and Lafayette Road.

Approximately 1,422 feet of sewer in the area of Rev. Mozel Sanders Park will be installed using the open-cut method. The rest of the project will use the micro-tunneling method of installation. The proposed 72-inch diameter relief sewer will be installed at depths ranging from 18 to 45 feet.

The following is a summary of the 72-inch sewer components:

Open Cut Sewer Pipe (72-inch diameter)	1,422 feet
Micro-tunneled Sewer Pipe (72-inch diameter)	3,691 feet
Cast in Place with risers/Special Manholes	9 each
Connection Structures	2 each

In addition to the above, approximately 151 feet of 8-inch diameter and 68 feet of 12-inch diameter sewer and 8 manholes will be installed to reconnect and relocate existing sewers in the project area.

The proposed 72-inch diameter relief sewer will be connected to an existing 78-inch diameter sewer at the intersection of 10th street with Miley Avenue. Sanitary sewer overflows that occur in the South Grove golf course upstream of the proposed project will be reduced (during the design storm) by extending the sewer to this point. These overflows will ultimately be eliminated upon completion of future project phases. However, Phase 1 construction will not relieve the sanitary sewer overflows

and surcharging upstream of approximately 30th Street; future phases of the Belmont North Relief Interceptor project should eliminate this problem. The following table summarizes the flow scenarios and split between the existing Belmont North Interceptor and the proposed 72-inch diameter relief sewer at the downstream end of the project:

FLOW SCENARIOS		
Flow Scenario	**Existing 54-inch Belmont North Interceptor**	**Proposed 72-inch Belmont North Relief Interceptor**
Existing Average Dry Weather (16.3 MGD)	4.4 MGD	11.9 MGD
Existing Peak Wet Weather (97 MGD)	40 MGD	57 MGD
Future Average Dry Weather (19.7 MGD)	5.3 MGD	14.4 MGD
Future Peak Wet Weather (72 MGD) with Belmont West Cutoff	31 MGD	41 MGD

V. Estimated Project Costs, Affordability and Funding

A. Selected Plan Estimated Cost Summary

ESTIMATED PROJECT COST	
ITEMS	**ESTIMATED COST**
Construction	$28,000,000
Inspection	$3,200,000
Land Acquisition *	$800,000
TOTAL PROJECT COST	**$32,000,000**
TOTAL SRF ELIGIBLE LOAN AMOUNT	**$31.200,000**

* The cost of land is not eligible for the SRF funding, although legal and administrative costs to acquire the land are eligible. The easements and rights-of-way will be acquired prior to the start of construction.

B. Indianapolis plans to finance the project through a 20-year State Revolving Fund Loan Program (SRF) loan at an interest rate to be determined at the loan closing. Monthly user rates and charges may need to be analyzed to determine if adjustments are required for loan repayment.

VI. Description of Evaluated Alternatives

A. No Action: Under the "no action" alternative, no efforts would be made to improve the problems with the Belmont North Interceptor. The capacity problems in the system would continue and would lead to environmental degradation.

B. Construction of the Belmont North Parallel Interceptor: Under this alternative, the city will construct a Parallel Relief Interceptor. The construction will be in phases; this document covers Phase 1.

Since the Belmont North Relief Interceptor (BNRI) is a parallel sewer, there are limited options for alternative alignments. Alternative routings were considered: One alignment involved running the BNRI west on 14th Street from the intersection of 14th Street and North White River Parkway West Drive and then north on North Belleview Place. This option was not feasible because of the 102-inch combined sewer that runs east on 14th Street to CSO 045. A second alternative was to run the sewer west on 17th Street from the intersection of 17th Street and Lafayette Road and then north on North Belleview Place. This route would be very difficult to construct in because of the narrower right-of-way and numerous easements that would be required, and offers no distinctive advantage over the recommended route other than less disruption to Lafayette Road. Alternatives were evaluated based on cost effectiveness, practicality, technical feasibility, reliability, ease of implementation and environmental soundness.

VII. Environmental Impacts of the Feasible Alternatives

A. Direct Impacts of Construction and Operation

Undisturbed Land: The open-cut portion of the proposed relief sewer in Rev. Mozel Sanders park may affect land suitable to contain archaeological resources. The city has conduced a reconnaissance level archaeological survey on that portion of the route; no archaeological materials were found. Undisturbed areas or farmland are not expected to be significantly impacted.

Structural Resources (Figures 2a and 2b): Vibrations due to mechanized tunneling operations should not be significant enough to affect historic sites near the project area. Vibration and air overpressure monitoring will be required through an independent third party when construction activities associated with shaft construction have the potential to generate significant vibrations. The contractor will be required to implement vibration control measures, if necessary.

Plants and Animals: The construction corridor will have a maximum width of about 75 feet. Minor tree removal may be necessary. The construction and operation of the project will not negatively impact state or federal-listed endangered species or their habitat.

Wetlands (Figure 3): Wetlands will not be impacted by the construction or operation of the project.

Surface Waters: There are no stream crossings in the Construction Phase 1 project. The project will not adversely affect Exceptional Use streams, Outstanding State Resource waters or Natural and Scenic Rivers.

Floodplain (Figure 4): The project area lies outside the 100-year floodplain of the West Fork White River.

Groundwater: The project will not affect a sole source aquifer. Dewatering of trenches may cause temporary lowering of the groundwater table. Residents with shallow wells in the construction area may therefore be temporarily affected. Provisions will be made to supply water to private well users during any interruptions to the water supply.

Prime Farmland: The proposed phase 1 construction project will not cause conversion of prime farmland.

Air Quality: Construction activities may generate some noise, fumes and dust. Construction activities should not impact ozone, airborne pollutants or other air quality concerns.

Open Space and Recreational Opportunities: Land use in the project area is primarily residential. The proposed project will cross Rev. Mozel Sanders Park. The city will return the park to its pre-construction condition.

National Natural Landmarks: Construction and operation of the proposed project will not impact National Natural Landmarks.

B. Indirect Impacts

The city's Preliminary Engineering Report (PER) states: *The City through the authority of its Council, planning commission, or other means will ensure that future development, as well as future collection system or treatment works projects connecting to State Revolving Funds (SRF) funded facilities, will not adversely impact wetlands, archaeological/historical/structural resources, other sensitive environmental resources. The City will require new development and treatment works projects to be constructed within the guidelines of the U.S. Fish and Wildlife Service, Indiana Department of Natural Resources (IDNR), Indiana Department of Environmental Management (IDEM), and other environmental review authorities.*

C. Comments by Environmental Review Authorities

The Natural Resources Conservation Service has determined that the project will not affect prime/unique farmland.

This document is the first notice to the U.S. Fish and Wildlife Service and the IDNR Environmental Unit.

VIII. Mitigation Measures

The city's PER lists the following mitigation measures: *Mitigation measures cited in comment letters from the Department of Natural Resources and the U.S. Fish and Wildlife Service will be implemented. The project will be implemented to minimize impact to non-endangered species and their habitat.*

Sewer segments will be installed using micro-tunneling and open cut construction techniques in rights-of-way wherever possible. Natural vegetation will be retained wherever feasible.

Sedimentation may be a concern during construction. The program shall meet applicable federal state and local laws; ordinances and standards pertaining to storm water management, sediment and erosion control will be followed.

No more than 100 feet of open trench will be allowed at one time. Excavate material will be kept to the upland side of the trench where possible. Excess material will be used elsewhere on the project.

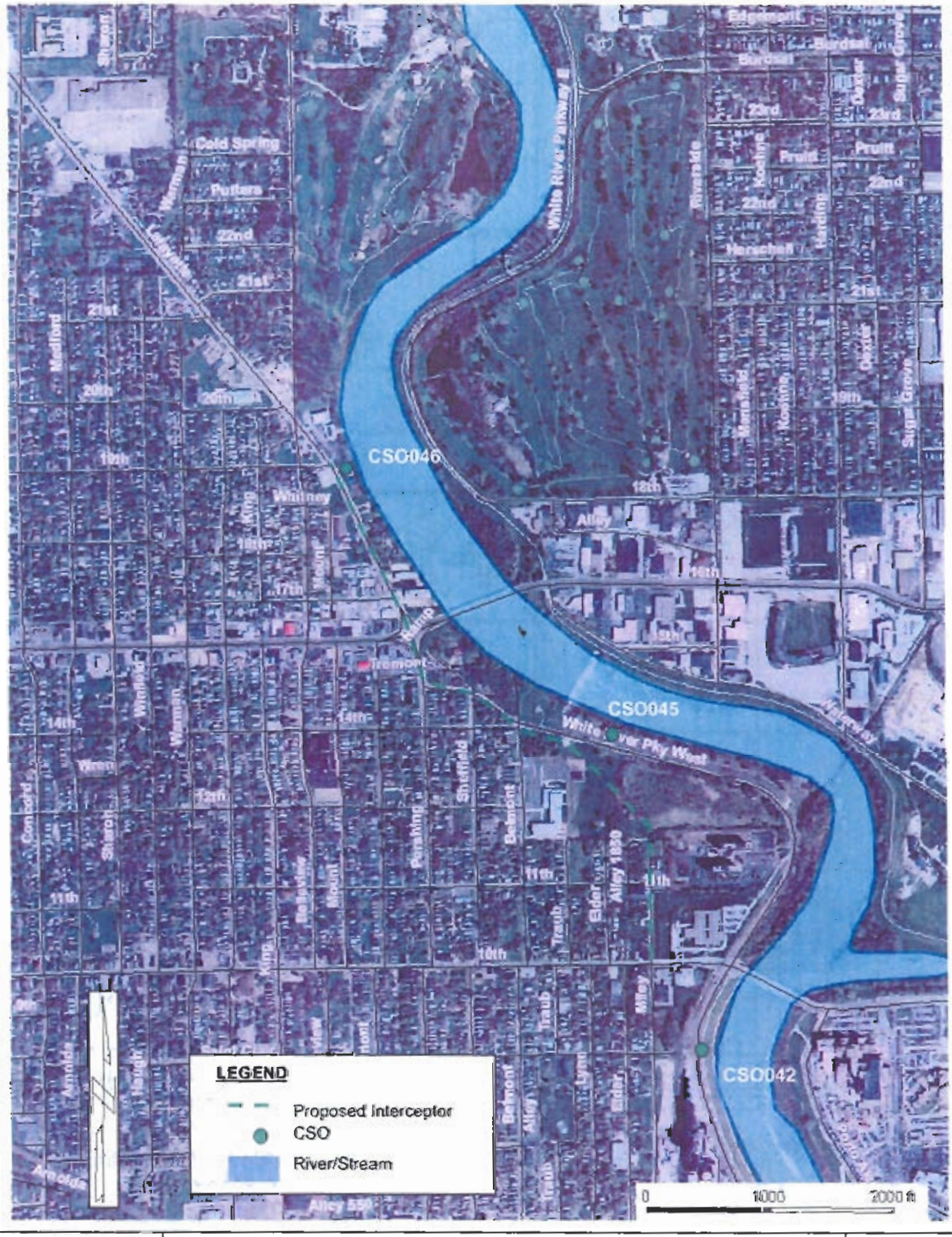
The existing topsoil will be reused during the restoration process, if applicable.

If necessary, discharge from dewatering will be directed to sedimentation basins or controls prior to discharging into surrounding surface waters.

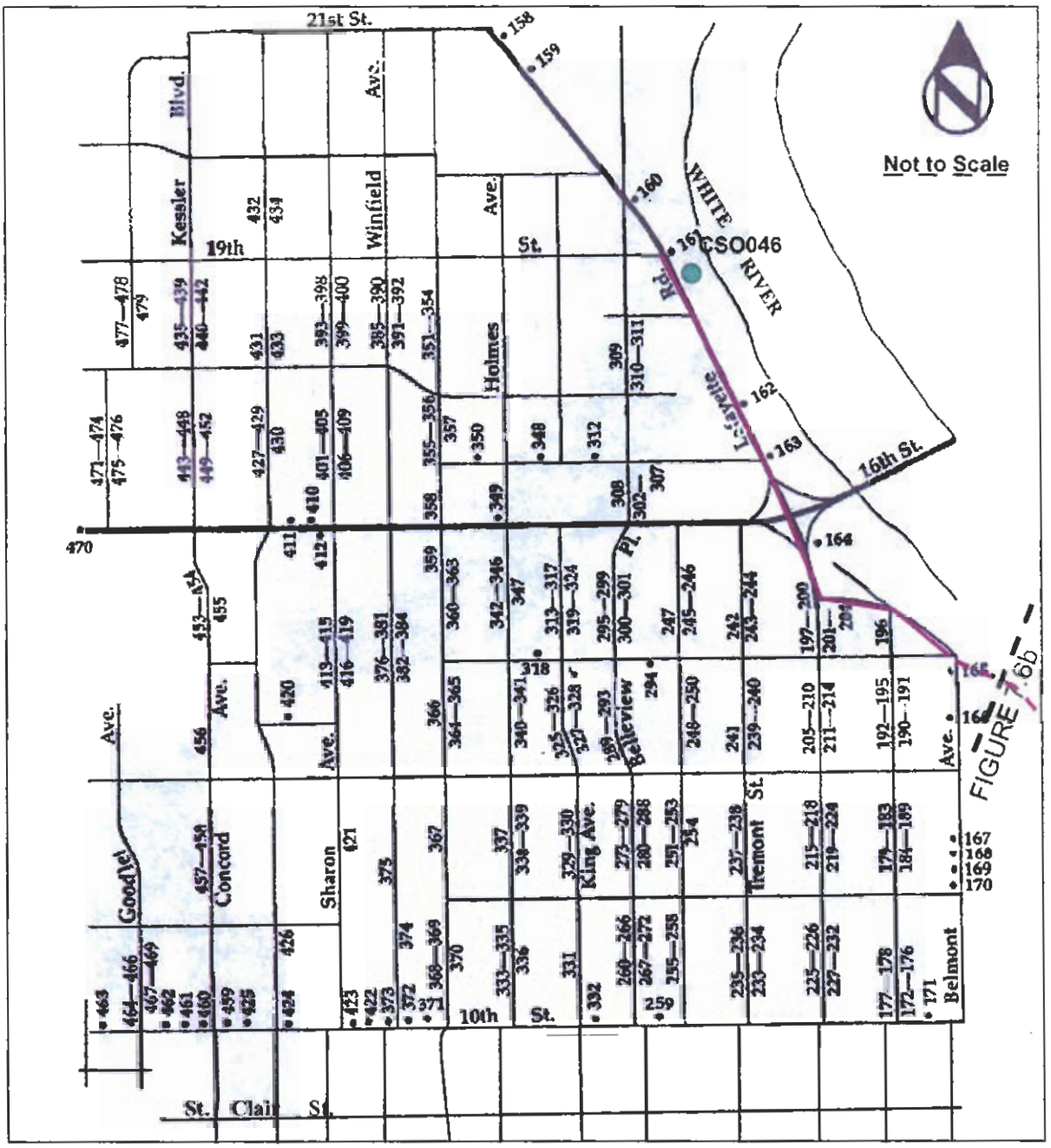
The adverse impacts caused by dust may be alleviated by periodically wetting the exposed soil and unpaved roadways to reduce the suspension of particles. To reduce noise impacts, work activities can be limited to normal daytime hours. The dust, fumes and noise are short-term impacts, lasting only during the construction phase.

IX. PUBLIC PARTICIPATION

A properly noticed public hearing was held on October 11, 2007 in the City-County Building to discuss the PER. No members of the general public attended. No significant comments were voiced at the public hearing, and no written comments were submitted in the five-day period following the public hearing.



BLACK & VEATCH PROJECT NO. 147136 *Revised 1/16/09*	CITY OF INDIANAPOLIS DEPARTMENT OF PUBLIC WORKS PRELIMINARY ENGINEERING REPORT 6A DPW PROJECT NO. SS-24-001C	**Figure 1**
	BELMONT NORTH PARALLEL INTERCEPTOR – CONSTRUCTION PHASE 1 AERIAL PHOTO	

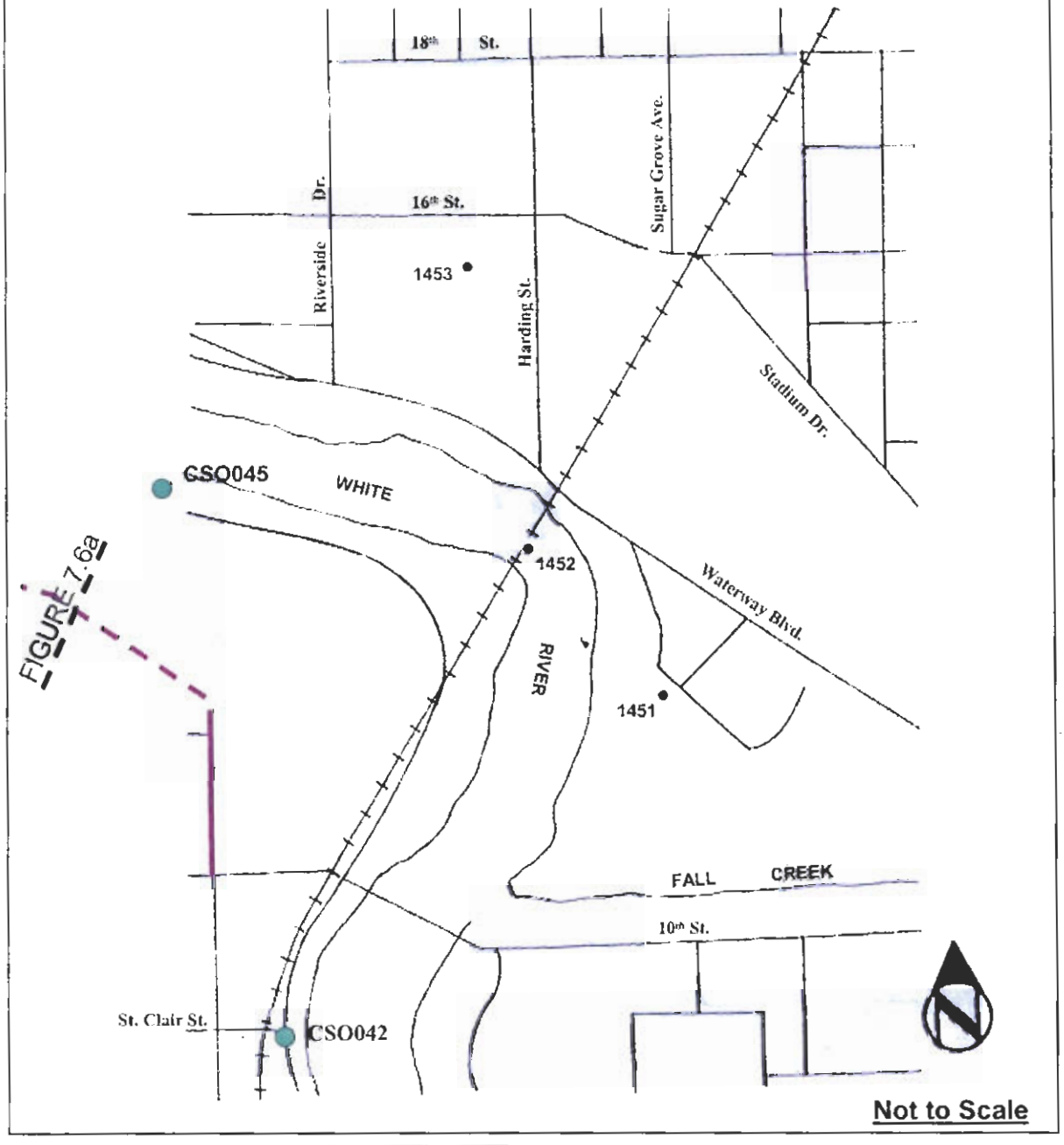


LEGEND

- Proposed Interceptor
- Open Cut Excavation
- Historic Site
- CSO

Wayne Township – Map #10
Sites #55158-55479
Haughville Historic District
(097-296-58001-60138)
North side of Michigan Street

BLACK & VEATCH PROJECT NO. 147136 *Revised 1/16/09*	CITY OF INDIANAPOLIS DEPARTMENT OF PUBLIC WORKS PRELIMINARY ENGINEERING REPORT 6A DPW PROJECT NO. SS-24-001C	Figure 2a
	BELMONT NORTH PARALLEL INTERCEPTOR – CONSTRUCTION PHASE 1 HISTORIC SITES MAP (MAP 1 of 2)	



LEGEND

- Proposed Interceptor
- Open Cut Excavation
- Historical Site
- CSO

Center Township – Map #7
Sites #1448-1453

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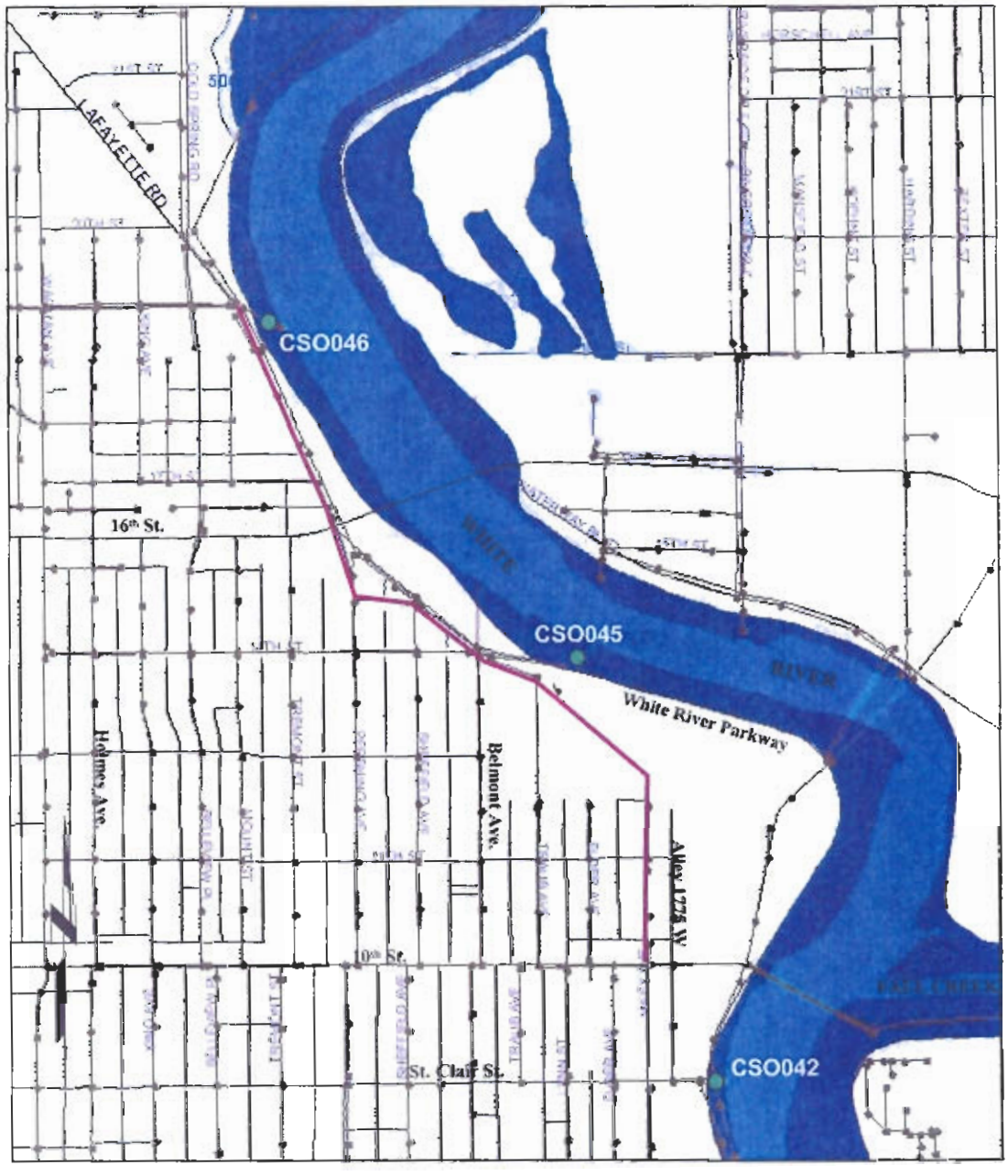
	BELMONT NORTH PARALLEL INTERCEPTOR – CONSTRUCTION PHASE 1 HISTORIC SITES MAP (MAP 2 of 2)	

BLACK & VEATCH PROJECT NO. 147136 *Revised 1/16/2009*	CITY OF INDIANAPOLIS DEPARTMENT OF PUBLIC WORKS PRELIMINARY ENGINEERING REPORT 6A DPW PROJECT NO. SS-24-001C BELMONT NORTH PARALLEL INTERCEPTOR – CONSTRUCTION PHASE 1 WETLANDS MAP	Figure 3



BLACK & VEATCH

PROJECT NO. 147136
Revised 1/16/09

CITY OF INDIANAPOLIS DEPARTMENT OF PUBLIC WORKS
PRELIMINARY ENGINEERING REPORT 6A
DPW PROJECT NO. SS-24-001C

BELMONT NORTH PARALLEL INTERCEPTOR – CONSTRUCTION PHASE 1
FLOOD ZONE

Figure 4